



## U.S. Fish & Wildlife Service

# Critical Habitat for 46 Plant Species from Molokai

Under the Endangered Species Act, the U.S. Fish and Wildlife Service is charged with designating critical habitat for threatened and endangered species whenever it is determined to be prudent and determinable. A proposed rule to designate critical habitat for listed species on the island of Molokai was published in the *Federal Register* in December 2000.

Comments received during the public review period and new information provided to the Fish and Wildlife Service led to extensive changes in the proposal. Rather than publishing a final rule, we are publishing a revised proposed rule to allow interested parties the opportunity to again submit comments.

### What changes were made from the original proposed rule?

Our December 29, 2000, proposal has been significantly revised in response to new biological information and public comments. These changes are summarized below; more detailed information can be found in the revised proposed rule.

### Critical habitat is determined to be prudent for one additional species:

Critical habitat for *Eugenia koolauensis*, a species no longer found on Molokai but existing on Oahu, is determined to be prudent in this revised proposed rule. This determination reverses one made at the time the species was listed that identifying critical habitat for the species may increase the threat of vandalism or collection.



*Tetramolopium rockii*, a member of the aster family found only on Molokai

Photo by Greg Koob

### Critical habitat is proposed for additional species:

The December 2000 proposal addressed designation of critical habitat for 32 plant species on Molokai. Critical habitat is proposed at this time for an additional 14 plant species.

Critical habitat is proposed for 7 species that no longer exist on Molokai but are found on other islands. This unoccupied habitat is considered essential for the species' survival and recovery.

In the December 2000 proposal, critical habitat for 7 additional species was not proposed because they only occur in areas that are protected and managed for the

benefit of the species. This critical habitat proposal includes unoccupied habitat outside these protected areas that is important for the eventual recovery of the species.

### A new method for identifying critical habitat was used:

In the December 2000 proposal, most of the areas proposed as critical habitat were currently occupied by one or more of the listed plant species. At that time, we believed we did not have sufficient information about the plants' historical range or their needs for survival and recovery to include unoccupied areas. Several commenters on that proposal not only provided more detailed information, but also reminded us



*Hesperomannia arborescens*

Photo by Greg Kaob

that existing occupied habitat may not be sufficient to allow for the recovery of these plants.

In response to these comments, the revised proposal designates habitat representative of the known geographic and elevational range of each species. The proposed critical habitat units allow for expansion of existing wild populations and reestablishment of wild populations within historic ranges. Boundaries were delineated so that overlapping occupied or potentially suitable unoccupied habitat units were combined within multi-species units.

We also adjusted and refined previously identified critical habitat units to more accurately follow natural topographic features and to avoid nonessential landscape features (agricultural crops, urban or rural development) that do not support these listed species.

### So what are you now proposing on Molokai?

We are proposing critical habitat for 46 plant species (see attached list). Critical habitat is not proposed for 4 species (*Bonamia menziesii*, *Cyperus trachysanthos*, *Melicope munroi*, and *Solanum incompletum*) once found on Molokai because they no longer occur on this island, and we are unable to determine habitat that is essential to their conservation.

These species do occur on other Hawaiian islands and will be included in other proposed designations of critical habitat.

Critical habitat is not prudent and therefore not proposed for one species of loulu or palm, *Pritchardia munroi*, because identifying its location may increase threats from vandalism or collection. We have made the same not prudent determination for other loulu species on other islands.

Ten critical habitat units totaling approximately 43,532 acres are being proposed on Molokai. A map depicting these areas and acreage figures by unit is attached to this fact sheet.

### How can the public comment on this revised proposed rule?

Written comments may be submitted by mail to the Field Supervisor, U.S. Fish and Wildlife Service, Pacific Islands Office, 300 Ala Moana Blvd., Room 3-122, Box 50088, Honolulu, HI 96850; or by delivering them to the same address.

If requested within 45 days, a public hearing on this proposal will be held on Molokai.

### Why is the Service proposing critical habitat throughout Hawaii?

In 1998, the United States District Court for the District of Hawaii directed the U.S. Fish and Wildlife Service to review the prudence determinations for 245 listed plant species in Hawaii, including 49 of the 51 species on the island of Molokai. We also were ordered to publish proposed critical habitat designations or nondesignations for at least

100 species by November 30, 2000, and for the remaining 145 species by April 30, 2002.

As a result of a subsequent court order, we will also include proposed critical habitat designations or nondesignations for 10 more recently listed Maui Nui plant species, including 2 species from Molokai. To comply with these orders, we plan to publish 7 notices of determinations of whether critical habitat is prudent, along with proposed rules as appropriate, in the following groupings: Kauai and Niihau, Maui and Kahoolawe, Lanai, Molokai, Northwestern Hawaiian Islands, Hawaii, and Oahu.

Four of these proposals have been published in the *Federal Register* to date: the Kauai and Niihau proposed rule on November 7, 2000; the Maui and Kahoolawe proposed rule on December 18, 2000; the Lanai proposed rule on December 27, 2000; and the Molokai proposed rule on December 29, 2000.

All of these proposed rules have now been revised and republished as proposed rules. The Kauai and Niihau revised proposed rule was published in the *Federal Register* on January 28, 2002; the Lanai revised proposed rule was published on March 4, 2002; and the Maui and Kahoolawe package on April 3, 2002. This Molokai package is the last of the four revised proposals. The remaining three packages for the Northwestern Hawaiian Islands, Hawaii, and Oahu will be published by April 30, 2002.

### What is critical habitat?

Critical habitat is the term used in the Endangered Species Act to define those areas of habitat that are known to be essential for an endangered or threatened species to recover and that require special management or





Photo by Greg Koob

*Sesbania tomentosa* or ohai

protection. The ultimate goal of the Endangered Species Act is to restore healthy populations of listed species within their native habitats so that they can be removed from the list of threatened and endangered species.

### **How does the designation of critical habitat increase protection for threatened and endangered species?**

If critical habitat is designated for a species, all Federal agencies must consult with the Fish and Wildlife Service to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat. In addition, designation of critical habitat focuses attention on those areas that are important to species recovery.

### **How does critical habitat affect private landowners and State lands?**

Critical habitat designation does not affect activities on State or private lands unless some sort of Federal permit, license, or funding is involved. Activities such as farming, grazing, logging, hunting, and other recreational uses generally are not affected by critical habitat designation, even if the landowner's

property is within the geographical boundaries of critical habitat.

The designation has no impact on individual, city, county, or State actions if there is no Federal involvement, nor does it signal any intent of the Federal government to acquire or control the land.

### **How does critical habitat affect Federal agencies?**

Federal agencies are required to ensure that any activity they fund, carry out, or authorize is not likely to jeopardize the survival of a listed species or destroy or adversely modify its critical habitat. By consulting with the Fish and Wildlife Service, an agency can usually minimize or avoid any potential conflicts with listed species and their critical habitat, and the proposed project may be undertaken. Most projects proceed unaffected.

### **How do you determine what areas to designate as critical habitat?**

We consider the species' current range (*i.e.*, areas in which the species currently exists) and historic range (*i.e.*, areas that the species formerly occupied within recent memory). Then, we identify features of the habitat that are needed for the species to live and reproduce.

Examples of features of the habitat or requirements that are generally considered are:

- space for individual and population growth for normal behavior;
- food, water, air, light, minerals, or other nutritional or physiological requirements;
- cover or shelter;
- sites for breeding, reproduction, or rearing of offspring, germination, or seed dispersal; and
- areas that are protected from disturbance or are representative of

the historic geographical and ecological distributions of a species. In this critical habitat proposal, we specifically considered the following habitat features: type of plant community, associated native plant species, locale (*e.g.*, steep rocky cliffs, talus slopes, streambanks), and elevation.

### **Are potential economic impacts considered?**

Yes. Although decisions to place species on the threatened or endangered list must be based solely on biological grounds, potential economic and social effects of critical habitat designations are analyzed and considered before the designations are completed.

An area may be excluded from proposed critical habitat if the Secretary of the Interior finds that the benefits of an exclusion outweigh the conservation benefits of including the area. However, excluding an area from a critical habitat designation is allowed only if doing so will not lead to the extinction of the species.

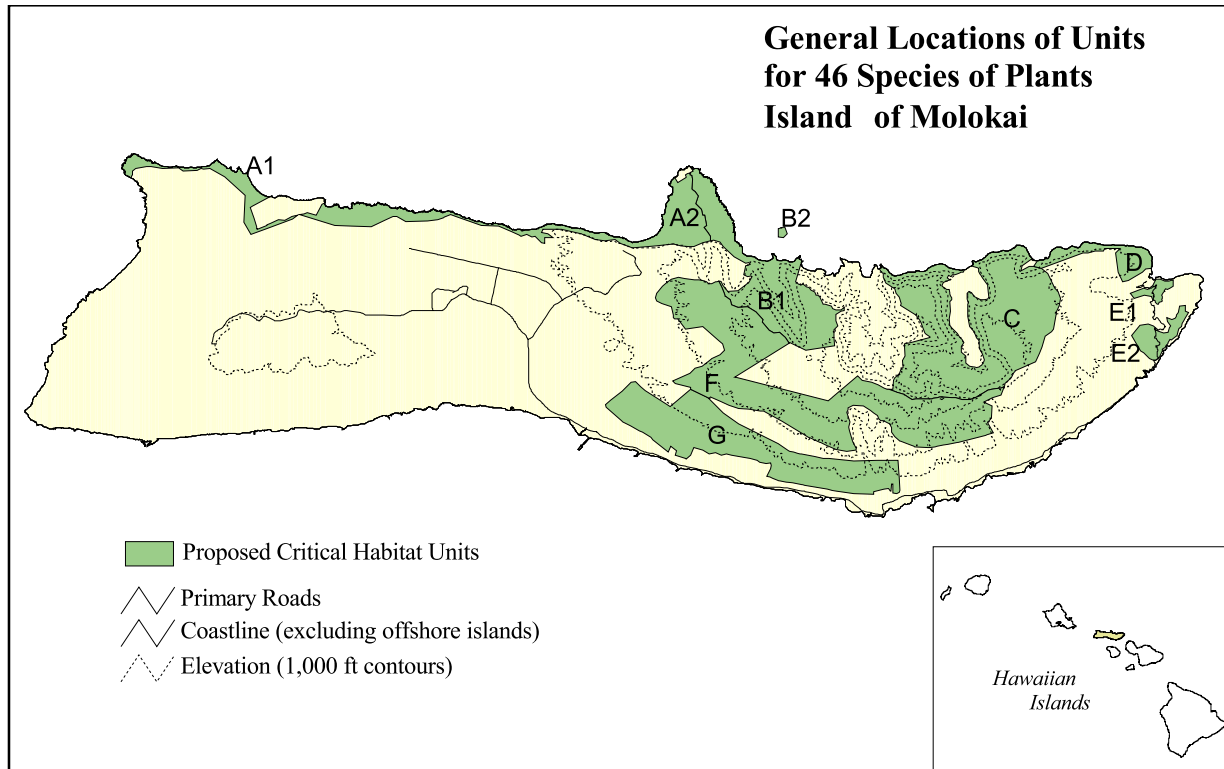
A draft economic analysis based on this proposal is under development and will be made available for public review. We do not anticipate the designation of critical habitat on Molokai will have any significant economic impacts.



Photo by Greg Koob

*Marsilea villosa* or ihi ihi

## General Locations of Units for 46 Species of Plants Island of Molokai



### Proposed Critical Habitat Units on Molokai

Unit	State/Local Lands	Private Lands	Federal Lands	Total
Molokai A	3,491 acres	1,442 acres	20 acres	4,953 acres
Molokai B	4,964 acres	468 acres	2 acres	5,434 acres
Molokai C	6,737 acres	4,400 acres		11,138 acres <sup>1</sup>
Molokai D		1,153 acres		1,153 acres
Molokai E	58 acres	1,078 acres		1,136 acres
Molokai F	4,435 acres	7,813 acres		12,247 acres <sup>1</sup>
Molokai G	2,932 acres	4,538 acres		7,471 acres <sup>1</sup>
<b>Grand Totals</b>	<b>22,617 acres</b>	<b>20,892 acres</b>	<b>22 acres</b>	<b>43,532 acres</b>

<sup>1</sup>Area differences due to digital mapping discrepancies between TMK data and USGS coastline or difference due to rounding

**Summary of Island Distribution of 46 Species from Molokai  
for Which Critical Habitat is Proposed**

Species	Island Distribution						NW Isles, Kaho`olawe, Niihau
	Kauai	Oahu	Molokai	Lanai	Maui	Hawaii	
<i>Adenophorus periens</i> (pendant kihi fern)	C	H	C	R	R	C	
<i>Alectryon macrococcus</i> (mahoe)	C	C	C		C		
<i>Bidens wiebkei</i> (ko oko olau)			C				
<i>Brighamia rockii</i> (pua ala)			C	H	H		
<i>Canavalia molokaiensis</i> (awikiwiki)			C				
<i>Centaurium sebaeoides</i> (awiwi)	C	C	C	C	C		
<i>Clermontia oblongifolia</i> ssp. <i>brevipes</i> (oha wai)			C				
<i>Ctenitis squamigera</i> (pauoa)	H	C	C	C	C	H	
<i>Cyanea dunbarii</i> (haha)			C				
<i>Cyanea grimesiana</i> ssp. <i>grimesiana</i> (haha)		C	C	C	C		
<i>Cyanea mannii</i> (haha)			C				
<i>Cyanea procera</i> (haha)			C				
<i>Diellia erecta</i> (asplenium-leaved diellia)	C	C	C	H	C	C	
<i>Diplazium molokaiense</i> (No common name)	H	H	H	H	C		
<i>Eugenia koolauensis</i> (nioi)		C	H				
<i>Flueggea neowawraea</i> (mehamehame)	C	C	H		C	C	
<i>Hedyotis mannii</i> (pilo)			C	C	C		
<i>Hesperomannia arborescens</i> (No common name)		C	C	H	C		
<i>Hibiscus arnottianus</i> ssp. <i>immaculatus</i> (kokio ke okeo)			C				
<i>Hibiscus brackenridgei</i> (mao hau hele)	H	C	H	C	C	C	Ka (R)
<i>Ischaemum byrone</i> (Hilo ischaemum)	R		C		C	C	
<i>Isodendron pyriformium</i> (wahine noho kula)	H	H	H	H	H	C	Ni (H)
<i>Labordia triflora</i> (kamakahala)			C				
<i>Lysimachia maxima</i> (No common name)			C				
<i>Mariscus fauriei</i> (No common name)			C	H		C	
<i>Marsilea villosa</i> (ihi ihi)		C	C				Ni (H)
<i>Melicope mucronulata</i> (alani)			C		C		
<i>Melicope reflexa</i> (alani)			C				
<i>Neraudia sericea</i> (No common name)			C	H	C		Ka (H)
<i>Peucedanum sandwicense</i> (makou)	C	C	C		C		
<i>Phyllostegia mannii</i> (No common name)			C		H		
<i>Phyllostegia mollis</i> (No common name)		C	H		C		
<i>Plantago princeps</i> (Laukahi kuahiwi)	C	C	C		C	H	
<i>Platanthera holochila</i> (No common name)	C	H	C		C		
<i>Pteris lidgatei</i> (No common name)		C	H		C		
<i>Schiedea lydgatei</i> (No common name)			C				
<i>Schiedea nuttallii</i> (No common name)	C	C	C		R		
<i>Schiedea sarmentosa</i> (No common name)			C				
<i>Sesbania tomentosa</i> (ohai)	C	C	C	H	C	C	Ni (H), Ka (C), NW Isles (C)
<i>Silene alexandri</i> (No common name)			H				
<i>Silene lanceolata</i> (No common name)	H	C	C	H		C	
<i>Spermolepis hawaiiensis</i> (No common name)	C	C	C	C	C	C	
<i>Stenogyne bifida</i> (No common name)			C				
<i>Tetramolopium rockii</i> (No common name)			C				
<i>Vigna o–wahuensis</i> (No common name)		H	C	C	C	C	Ni (H), Ka (C)
<i>Zanthoxylum hawaiiense</i> (a e)	C		C	H	C	C	

**KEY**

C (Current): population last observed within the past 30 years  
H (Historical): population not seen for more than 30 years  
R (Reported): reported from undocumented observations